

REMARKS

Interview Summary

In a phone interview on August 11, 2005, Examiner Scott T. Baderman and attorney Peter Gallagher discussed the Final Office Action dated June 3, 2005. In particular, the rejection of claim 1 and the Response to Arguments regarding claim 1 in the Office Action were discussed. The prior art reference used in the rejection, US Patent Publication No. 2002/0091965 (Moshayedi) was also discussed. The arguments made with respect to claim 1 in the amendment of February 18, 2005 were restated and further explained. In particular, it was pointed out that Moshayedi does not appear to disclose, "updating a counter, the counter being arranged to be updated each time a spare unit of erase of the plurality of spare units of erase is reassigned" of claim 1.

In a subsequent phone interview on August 15, 2005, the wording of this limitation and support for this limitation in the specification of the application were also discussed. The claim amendments and arguments made in this response were submitted for informal consideration on August 15, 2005 and the amended claims were indicated to be allowable in a phone call from the Examiner on August 16, 2005.

Claim Rejections under 35 USC 102

Claims 1-17, 20-39 and 41-46 were rejected under 35 USC 102(e) as being anticipated by Moshayedi (US Pub. 2002/0091965). Claim 1 is submitted to distinguish over Moshayedi as discussed in the phone interviews of August 11 and 15, 2005. In particular, claim 1 recites, "updating a counter, the counter being arranged to be updated each time a spare unit of erase of the plurality of spare units of erase is reassigned." This limitation does not appear to be shown by Moshayedi. Moshayedi appears to disclose a system where "the receipt of an updated spares count may come in response to a request," paragraph [0051], lines 1-2. Such a request is disclosed as being triggered by various events (see paragraph [0051]). However, reassignment of a spare unit of erase is not disclosed as a triggering event. No updating of such a counter without a request appears to be disclosed. Thus, Moshayedi does not appear to disclose a counter updated "each time" a spare unit of erase is reassigned.

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It is noted that Moshayedi discloses, "for each moved data item, the defect map area 206 comprises a logical identifier for the data item, as well as a reference to a new location in the spares area 210 to which the data item has been moved," paragraph [0043]. However, the defect area 206 does not appear to contain a counter that reflects the number of moved data items and is updated each time a data item is moved.

The limitation of claim 1 discussed above appears to be supported throughout the specification and advantages of updating a counter each time a sector is reassigned are also disclosed. For example, "maintaining a count of spare sectors and determining when the count reaches a critical level occurs substantially automatically during or substantially immediately after a reassign operation," page 7, lines 18-20. "A determination that a storage device has likely become unreliable may occur substantially as soon as the count of spare sectors reaches a critical level," page 7, lines 26-28. The limitation is further supported by Figure 2 which shows "replace current sector with spare sector" 220 being immediately followed by "update spare sector counter" 224. The corresponding text discloses, "After the current sector is replaced with the spare sector, the spare sector counter is updated in step 224. Typically, updating the spare sector counter is considered to be a part of a sector reassign operation," page 12, lines 25-27.

Independent claims 6, 21 and 34 contain similar limitations to the limitation of claim 1 discussed above and are therefore also submitted to be allowable.

Independent claim 39 is canceled and claim 41 is rewritten in independent form containing all the limitations that were previously recited in claim 39. Claim 41 recites "the counter being arranged to be updated each time a spare unit of erase of the plurality of spare units of erase is reassigned." Thus, claim 41 is submitted to be allowable for similar reasons to claim 1. Claim 43 is amended to depend from claim 41 instead of claim 39.

Independent claim 44 is canceled and claim 45 is rewritten in independent form containing all the limitations that were previously recited in claim 44. Claim 45 recites "the counter being arranged to be updated each time a spare unit of erase of the plurality of spare units of erase is reassigned." Thus, claim 44 is submitted to be allowable for similar reasons to claim 1.

Because independent claims 1, 6, 21, 34, 41 and 45 are allowable as discussed above, all dependent claims are also submitted to be allowable at least for depending from allowable base

claims. In addition, certain dependent claims are believed to be additionally allowable as discussed in the amendment of February 18, 2005.

CONCLUSION

In view of the amendments and remarks contained herein, it is believed that all claims are in condition for allowance and an indication of their allowance is requested. However, if the Examiner is aware of any additional matters that should be discussed, a call to the undersigned attorney at: (415) 318-1163 would be appreciated.

Respectfully submitted,



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